

To: DeYoung, Robyn[DeYoung.Robyn@epa.gov]
Cc: Studarus, Karen[karen.studarus@pnnl.gov]; Jeremy Fisher[jfisher@synapse-energy.com]; Angel, Stacy[Angel.Stacy@epa.gov]
From: Hardy, Trevor D
Sent: Tue 7/7/2015 11:32:21 PM
Subject: Re: Power Plant Emissions Metrology

Robyn,

We expect release of the website for review by the advisory committee (and the EPA) will take place in the next few weeks; I'll be sure you're on the list when we send out the notification.

I like the "AVERT engine" term and have been updating our documentation with it; thanks for the suggestion.

Trevor

From: "DeYoung, Robyn" <DeYoung.Robyn@epa.gov>
Date: Monday, July 6, 2015 at 11:37 AM
To: Trevor Hardy <trevor.hardy@pnnl.gov>
Cc: Karen Studarus <karen.studarus@pnnl.gov>, Jeremy Fisher <jfisher@synapse-energy.com>, "Angel, Stacy" <Angel.Stacy@epa.gov>
Subject: RE: Power Plant Emissions Metrology

Hi Trevor,

Thanks for giving me your schedule. Could you send me the web link of your draft website?

In general we are okay with you referencing AVERT. So that people don't expect to see the AVERT main module user interface, we'd like to suggest saying the emission calculations are being driven by the "AVERT engine", or something to that effect.

We are glad that the AVERT methodology can be used in your tool. I'd like to give our managers a heads up about the release of the tool before it goes public, please keep me updated on your schedule so we let them know when things are coming.

Down the road I'm also curious to learn about the smart grid load shapes you are using and whether that is public data.

Thanks for keeping us informed!

Robyn

Robyn (Kenney) DeYoung

202-343-9080

U.S. EPA

State and Local Climate and Energy Program

<http://epa.gov/statelocalclimate/>

From: Hardy, Trevor D [<mailto:trevor.hardy@pnnl.gov>]

Sent: Thursday, June 25, 2015 1:45 PM

To: DeYoung, Robyn

Cc: Studarus, Karen

Subject: Re: Power Plant Emissions Metrology

Robyn,

Thanks for looking into those AVERT items. We are very glad to hear the time-zone effect is minimal and that the ozone season is easily handled.

We are getting pretty close to releasing the tool to our advisory committee so you'll be able to look it over then and let us know what you think. Regarding the EPA and AVERT branding, when we talked with Stacy Angel a few weeks ago she was unsure if having us claim this is AVERT would be appropriate. Do you have any thoughts on the matter? The core of what we are using are the load and emissions tables in the RDFs published on the AVERT website. We aren't using the Excel front-end or any of the other user-interface elements AVERT might normally employ. Is it fair to call this AVERT? If you have any preliminary thoughts that could be helpful but we'll wait for our final discussion once you've had a chance to look at the website.

Trevor

From: <DeYoung>, Robyn <DeYoung.Robyn@epa.gov>
Date: Thursday, June 25, 2015 at 10:23 AM
To: "Angel, Stacy" <Angel.Stacy@epa.gov>, Trevor Hardy <trevor.hardy@pnnl.gov>, "angel.stacy@epa.gov" <angel.stacy@epa.gov>
Cc: Jeremy Fisher <jfisher@synapse-energy.com>
Subject: RE: Power Plant Emissions Metrology

Hi Trevor,

I can answer any questions you have regarding AVERT. This is great timing, because I've been meaning to catch up with you since our last correspondence! I wanted to touch base on a few items in your slides, answer your CEMS question and we have an update on other items.

Time zone:

We found that the time zone differences for different states within regions would alter emission impacts less than 1% in the most possible egregious cases. Given this small change we will won't be doing a full update at this time, but will schedule it for a future change as we find time.

Ozone Season:

The ozone season in AVERT is May through September. (we are fixing the typo where we say it's October) However we've learned that ozone seasons do vary across states. I've attached a table that shows you the variation in ozone seasons as listed in our regulations. If a state wants to customize their specific ozone season designation, they can do so using the monthly data information we provide as one of the outputs of the tool.

CEMS question:

We have information in our user manual for where we get our CEMs data. In Appendix B on page 45 of the User Guide we describe the CEMS data we use within the tool. This data is regularly collected every year as a requirement under 40 CFR Part 75 reporting requirements for electric generating units greater than 25MWs. You can go to this website for the raw data.
<http://ampd.epa.gov/ampd/>

Let me know if you have any questions, and it would be good to touch base before you go public

with your smart grid tool so we can coordinate messaging and we'd like a chance to take a look at your new model that uses AVERT as the underlying calculation in your tool.

Best,

Robyn (Kenney) DeYoung

202-343-9080

U.S. EPA

State and Local Climate and Energy Program

<http://epa.gov/statelocalclimate/>

From: Angel, Stacy
Sent: Thursday, June 25, 2015 9:12 AM
To: Hardy, Trevor D; 'angel.stacy@epa.gov
Cc: DeYoung, Robyn
Subject: RE: Power Plant Emissions Metrology

Have you looked at the CEMS data documentation? I don't have that link. Let me know if a search for Continuous Emissions Monitoring System data doesn't work.

From: Hardy, Trevor D [<mailto:trevor.hardy@pnnl.gov>]
Sent: Wednesday, June 24, 2015 5:38 PM
To: 'angel.stacy@epa.gov
Subject: Power Plant Emissions Metrology

Stacy,

As we've continued to work on our tool to estimate the emissions impacts of smart grid projects and our use of AVERT, we've been wondering how the emissions data is collected from the power plants themselves. Are there documents that you could point us towards that would give us a better idea how the pollutants are measured and how edge cases are handled (missing data, bad sensor, etc)? Any information you could provide would be helpful.

Thank you.

Trevor Hardy

Research Engineer

Pacific Northwest National Lab

509.372.4712